

A35960 - 072853.0109  
PATENT

**REMARKS**

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**MAY 30 2007**

**Summary of Office Action**

Claims 1-12 are pending.

Claims 1-6 are rejected under 35 U.S.C § 101 as directed to non-statutory matter.

Claims 7-12 have been rejected under 35 U.S.C § 112, first paragraph. Further, Amendments to the Specification (dated 1/9/06) have been objected to as introducing new matter.

**Applicants' Reply**

Applicants respectfully traverse the "new matter" objection, and the § 101 and § 112 rejections.

**New Matter Objection**

Applicants' invention is directed to oil exploration, and oil reservoir modeling of seismic measurement including 3-D and cross-sectional imaging data. (See ¶¶[0001] -[0008]). The modeling includes geological surface modeling such as "realization" (i.e., a possible set of surfaces representing the oil reservoir). (See ¶[0010]). Applicants respectfully submit that a person in the art readily recognizes that geological modeling and oil reservoir realization modeling is done using computer programs and that such computer programs necessarily reside in computer readable media.

Applicants' specification includes explicit reference to the use of computer and software in the field of geological modeling of concern. For example, the specification refers to U.S. patent 4,821,164. (See ¶ [0012]). This patent, which is entitled "Process For Three-Dimensional Mathematical Modeling Of Underground Geologic Volumes," explicitly describes the need for computers or "stored program processors" for geological modeling.

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Further, the specification refers to EP0801364 (US patent No. 5,844,564). This patent describes improvement in 3D-grid pattern generation, simulation, interpolation, gridding and surface modeling over the prior art computer methods (e.g., described in prior art "Generation Automatique de Maillages", Editions Masson, 1.) using "software" (e.g., "interpolation software", "specialized software GOCAD", "surfacing software," and "simulation software."

Further, applicants' specification explicitly refers to the use of "meshed computerized description of surfaces" and "computerized description of surfaces" in French patent application 2, 652, 180. (See ¶ [0011]).

Applicants' amendments to ¶[0021], which were intended to provide explicit antecedent basis for the claims, are part of the original disclosure (at least implicitly and inherently) as is readily recognizable by a person of ordinary skill in the art) and therefore not new matter.

However, to expedite prosecution, applicants have without prejudice, amended the specification to delete the objected-to phrase as required by the Examiner.

35 U.S.C § 101 rejection of claims 1-6

Applicants have amended claim 1 to include the step of "delivering the calculated meshed description realization of the reservoir to the user." No new matter is added because the specification in its entirety supports the notion of providing or delivering the calculated meshed description realization of the reservoir to the user, and that it would be so recognized by persons of ordinary skill. The as-filed specification reasonably conveys to one skilled in the art that the inventors at the time of the application was filed had possession of the claimed invention.

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Applicants submit that the delivery of “the calculated meshed description realization of the reservoir to the user” is useful, concrete and tangible result. Therefore, applicants respectfully submit that amended claims 1-6 are directed to statutorily patentable subject matter and conform to all requirements of § 101 including the requirement that the claimed inventive process should have a “practical application with a tangible result.”

35 U.S.C § 112 rejection of claims 7-12.

Applicants have amended claim 7 to claim “a computer-readable medium with a program stored thereon for calculating a meshed description of a realization of a reservoir. No new matter is added because the specification in its entirety supports the notion of a computer-readable medium with a program stored thereon for calculating a meshed description of a realization of a reservoir and that it would be so recognized by persons of ordinary skill. The as-filed specification reasonably conveys to one skilled in the art that the inventors at the time of the application was filed had possession of the claimed invention.

Applicants respectfully submit that amended claims 7-12 conform to all requirements of § 112.

New claim 13.

Claim 13 is directed to a computer readable medium with instructions for the performance step (f) of claim 1.

Claim 13 conforms to all requirements of § 101 and § 112, for at least the same reasons discussed above with regard to claims 1-6 and 7-12, respectively.

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Conclusion

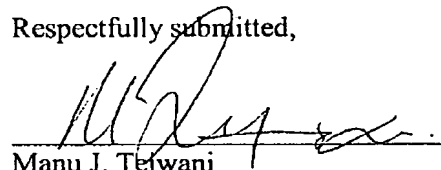
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This application is now in condition for allowance. Reconsideration and prompt allowance of which are respectfully requested.

Applicant respectfully requests that the Examiner grant a telephone interview to the undersigned attorney to discuss the preceding remarks, the invention, and the language of claims 1 and 7 to advance prosecution of this application.

Respectfully submitted,



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